

Master Professional “Lasers in Dentistry”



SIGMUND FREUD
PRIVATE UNIVERSITY
VIENNA



AALZ - Dental Laser Center

For over 30 years, AALZ has been the **leading worldwide institute** in dental laser education.

Known for its research in laser-assisted dentistry, it cooperates nationally and internationally with major research facilities.

We offer recognized and accredited training and help meet your goal of becoming a laser specialist

AALZ



AALZ

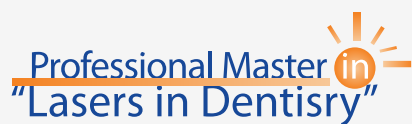


1991 2004 2008

Founded by Prof. Norbert Gutknecht in Aachen Germany
First dental laser institute worldwide



First accredited Master of Science in Lasers in Dentistry at RWTH Aachen University, executed by AALZ



Bronze Award of the European Union for Life-Long Learning



2009 2022

Founded by Mr. Leon Vanweersch to establish an exclusive alumni network for all AALZ graduates

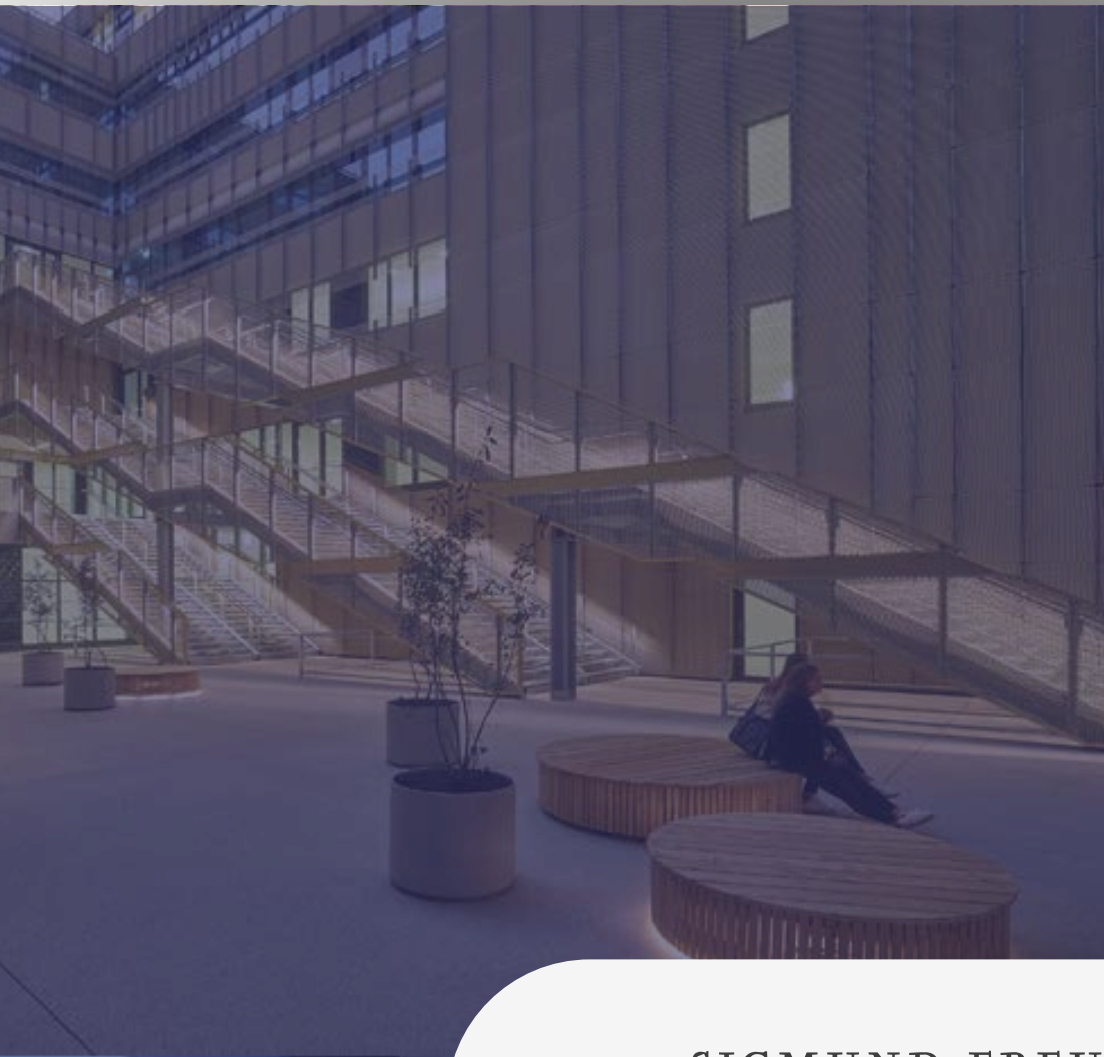


Aachen Dental Laser Center

Master Professional Lasers in Dentistry SFU Sigmund Freud Private University Vienna, Austria



The History
of AALZ



SFU



SIGMUND FREUD
PRIVATE UNIVERSITY
VIENNA



Zahnklinik
Sigmund Freud
PrivatUniversität

The academic degrees awarded in the individual programs are Austrian degrees which are recognized in the European Higher Education Area.

SFU Sigmund Freud Private University is a university accredited by the Austrian Accreditation Council located in Vienna, Austria. SFU specialises in psychotherapy, psychology, law, medicine and dentistry. SFU offers study programs in Vienna, as well as in Linz, Berlin, Ljubljana, Milan and Paris

Innovative and student-centered teaching, finding and fulfilling promising research niches and being the intellectual home for students keen on learning and wanting to grow, makes the SFU a unique place to study today.

The university is situated in the heart of Vienna, just on some meters of the world famous Wiener Prater park and very easy reachable with all kind of public transport.

SFU Sigmund Freud
Private University



The Austrian capital, Vienna, has been again elected as the world's most liveable city, according to the latest report from "The Economist" journal.

The beautiful and safe city of Vienna is one of the largest student hubs in German speaking countries with approximately 150,000 students. For years, Vienna has ranked highest for quality of living worldwide.

It is also the birth place of Sigmund Freud's psychoanalysis.

Would you like to study in Vienna, Freud's city? Then join us!

**Vienna
Information**



Our best Master program yet!

At Sigmund Freud Private University Vienna you will find the unique opportunity to become an expert in laser dentistry, and to qualify yourself with a highly recognised degree, while simultaneously continuing with your career and clinic. Our program is designed to be career accompanying (blended learning concept), and will fit into your busy life as dentist!

- The practical parts of our presence blocks are conducted in **state of the art facilities** and supported by a **wide range of dental laser systems** from all important manufacturers. You will “test drive” them all, supporting you in your decision process.
- We offer a so called “**boot camp**” at our partner university **Misr International University in Cairo - Egypt (MIU)**, for laser treatments all day long and to learn from our long year’s specialists. Under their guidance you will treat patients yourself by having the possibility to do so **with all available wavelengths in dentistry**.
- **Our blended learning concept** gives you adequate time for the master thesis and we give more time to study for the exams, removing a major stress factor.
- The program consists of **6 presence blocks in Vienna** (19 modules) and one optional presence block in Cairo - Egypt, which are distinct and focused, which means that you will be in total approximately **50 days in Vienna** to complete the full program in **5 semesters**, and achieve your degree as Master Professional in Lasers in Dentistry with **120 ECTS!**
- **Short attendance blocks** (limited time away from home & work, blended learning concept, digital teaching & learning, online case conferences)

Master Professional “Lasers in Dentistry”



Benefits

With the supervision by qualified scientific staff, participants are introduced to the successful and professional application of lasers in their practice. The degree enables an innovative step in the interdisciplinary linking of life science, medicine and natural sciences. The interdisciplinary cooperation also offers the possibility of linking research and teaching between the fields of dentistry and physics at the highest level of quality.

The **main objectives** of the program are to provide students with **scientific skills** and to enable them to **take up a qualified position** in the dental community.

Qualifications that students acquire in the course of their studies are in particular:

- An **understanding** of the **different optical models** for the classification of light
- **Knowledge** of the **physical principles** as well as the **technical implementation** of a laser system
- **Advanced knowledge** of the **dental laser principles**, associated with the **application of dental laser systems** of all available dental wavelengths
- **Competent and professional patient counselling** in all areas of **lasers and laser-assisted therapies**
- **Critical evaluation ability** of scientific knowledge in the field of dentistry
- The **ability to use dental laser systems** in a **clinically correct manner**:
 - The **safe and ethical use** of lasers
 - The **clinically indicated use of lasers**, taking into account the indications and contraindications for the given wavelengths.
 - The **supportive or independent role** of lasers in therapy
 - Use of dental lasers on **expert level** in a **clinical environment**
- **Recognized therapy plans and treatment protocols**

Master Professional
“Lasers in Dentistry”



Your Profile

This Master program is aimed at dentists who want to train as experts in laser dentistry and who wish to qualify with a highly recognised degree, while simultaneously continuing with their career.

The program is designed to be career accompanying and will fit into the busy life of practicing dental professionals.



Entry Requirements

- A first university degree in dentistry from a recognised institution
- A minimum of two years of working experience in a dental clinic or practice
- Proof of English language skills

Master Professional
“Lasers in Dentistry”

Master



Awarded Degree

The Master Professional “Lasers in Dentistry” is an accredited Master program in the field of laser dentistry.

Successful participants receive a total of 120 credit points in accordance with the European Credit Transfer and Accumulation System (ECTS).

Graduates are awarded the academic title “Master Professional Lasers in Dentistry” of Sigmund Freud University and, as such, are becoming experts in the field of laser therapy in dentistry.

This Master degree qualifies the graduate to start a doctoral study or PhD program.

On completion of the appropriate training module, participants also receive a “Laser Safety Officer” (LSO) certificate.

Master Professional “Lasers in Dentistry”

Course Objectives

The Master Professional “Lasers in Dentistry” balances the teaching of medical aspects with extensive practical skill training on the dental application of laser systems.

The close interdisciplinary cooperation of dentistry and physics is of significant importance in this field.

Treatment methods, the planning and preparation of treatments, the systematic organisation of scientific and clinical findings, as well as an independent, responsible handling are the priorities of this professional program.



Master Professional
“Lasers in Dentistry”

Module Plan

Semester 1

(Presence block at SFU)



Laser Safety
30 Sep. 2024

Diode Lasers
1-4 Oct. 2024

Erbium Lasers
5-8 Oct. 2024

(Online)



Scientific Integrity
TBA

(Presence block at SFU)



PBMT & Stat 1
30 Jan. - 3 Feb. 2025

Optics
4-6 Feb. 2025

Semester 2

(Presence block at SFU)



Laser Physics
6-9 Oct. 2025

CO2 Lasers
10-11 Oct. 2025

(Online)



Scientific Integrity
TBA

Applied Optics
Several online sessions
throughout semesters 2-4

Module Plan

Semester 3

(Presence block at MIU) 

Treatments, Excursion Week to MIU
22-26 Nov. 2025

(Online) 

Applied Laser Physics
TBA

(Presence block at SFU) 

Lasers in Orthodontics
28-29 Jan. 2026

Lasers in Paediatric Dentistry
30-31 Jan. 2026

Nd:YAG Lasers
1-4 Feb. 2026

Semester 4

(Presence block at SFU) 

Symposium & Marketing
30 Sep. - 3 Oct. 2026

Master Thesis 
individual appointments

(Online) 

Scientific Integrity
TBA

Applied Optics
*Several online sessions
throughout semesters 2-4*

** Version: 31 March 2024. Dates are subject to change,
always check your e-learning for updates.*

Module Plan

Semester 5

(Presence block at SFU) 

**Final Exams /
Graduation Ceremony**
28 - 30 Jan. 2027

Master Thesis 
individual appointments

Quick facts:

5 semesters (2.5 years)

Blended learning concept

Course language: English

120 ECTS

5000€*

** per Semester (early bird fees)
ask for your preferred fees when you finished successfully
mastership or equivalent programs in laser dentistry*

** Version: 31 March 2024. Dates are subject to change,
always check your e-learning for updates.*



Priv. Doz. Dr. Rene Franzen

*Scientific Director - Physicist -
Scientific Master Course Director*

- Scientific Director at AALZ Aachen Dental Laser Center
- Visiting Scientist at the Institute of Medical Statistics, RWTH Aachen University Medical Faculty, Germany
- Visiting Professor at MIU Misr International University, Cairo, Egypt
- Member of the Scientific Advisory Board DGL Deutsche Gesellschaft für Laserzahnheilkunde e.V. (German Society for Laser Dentistry)



Dr. Dimitris Strakas, PhD, MSc

*Scientific Director - Dentist -
Clinical Master Course Director*

- Scientific Director at AALZ Aachen Dental Laser Center, Germany
- Head of Dental Laser Clinic in Aristotle University of Thessaloniki, Greece
- Visiting Professor at MIU Misr International University, Cairo, Egypt
- University Scholar at the Operative Dentistry Department in Aristotle University of Thessaloniki, Greece
- Vice-President Hellenic Laser Dentistry Society (HALD), Greece
- Secretary General International Society for Laser Dentistry (ISLD)



Leon Vanweersch MBA

*Executive Director -
Organising Course Manager
& Director Student Affairs*

- Executive Director AALZ and WALED
- Academic Coordinator & Business Development Management
- Organization Board Member International Society for Laser Dentistry (ISLD)
- Managing Office Editor of the journal "Lasers in Dental Science" (LIDS)



DDr. Wolfgang Manschiebel

*Head of the Dental Clinic of the
Sigmund Freud Private University -
Organising Master Course Director*

- Head Dental Laser Centre at Sigmund Freud Private University Vienna, Austria
- Organising course director
- Specialist in dentistry, oral and maxillofacial medicine

**Course
Directors**



Prof. Marcia Marques, PhD, M.Sc.
(University of Sao Paulo, Brazil - AALZ-WALED)

Prof. Dr. Ralf-Dieter Hilgers, PhD
(RWTH Aachen University, Aachen, Germany; SFU,
Vienna, Austria - AALZ-WALED)

Dr. Youssef Sedky, PhD, M.Sc.
(Misr International University Cairo, Egypt - AALZ-
WALED)

Dr. Miguel Martins, PhD, M.Sc.
(Eindhoven, Netherlands - AALZ-WALED)

Prof. Aslihan Usumez, PhD, M.Sc.
(Istanbul - Istanbul International Academy, Turkey -
AALZ-WALED)

Dr. Pilar Martin, PhD, M.Sc., M.Sc.
(Valencia University, Tenerife, Spain & representative
Latin America- AALZ-WALED)

Dr. Isaac Kably, PhD, M.Sc.
(Anáhuac University, Mexico City, Mexico -
AALZ-WALED)

Dr. Ilay Maden, PhD, M.Sc.
(London, UK - AALZ-WALED)

Dr. Anna-Maria Yiannikos, PhD, M.Sc.
(Nikosia, Cyprus - AALZ-WALED)

Dr. Codruta Ciurescu, DDS, M.Sc.
(Brasov University, Romania - AALZ-WALED)

Dr. Gabriele Schindler-Hultzsch
(Aichach, Germany - AALZ-WALED)

Dr. Fabien Hauser
(Genève, Suisse)

* more lecturers by appointment

**Team of
Lecturers**

Collaborations



BIOLASE

Biolase - USA

**Dentsply
Sirona**

*Dentsply Sirona -
USA Germany*

Fotona
choose perfection

Fotona - Slovenia

MEDENCY
TECHNOLOGY | INNOVATION | PASSION

Medency - Italia

LIGHT INSTRUMENTS
RISE ABOVE TECHNOLOGY

*Light Instruments -
Israel Brazil*

LAZON
LAZON Medical Laser

Lazon - China

ORCOS
MEDICAL

*Orcos Medical -
Suisse*

WOODPECKER

Woodpecker - China

Collaborations



*For application
and further
details:*

**AALZ – World
Academy for Laser
Education in
Dentistry
www.aalz.de**

*Application
process -
fully digital via SFU
online:*

[Postgraduate
Program Lasers in
Dentistry](#)



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